

SHIP DEC. 24

Work Order ID 153281

153281

Page 1

Tuesday, November 15, 2016 1:10:52 PM

Item ID: D412-769-042 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Aft Facing Seat, RH
 Start Date: 11/21/2016 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 12/7/2016 Req'd Qty: 1.00 *1* Customer:
 Reference: SO128516

Approvals: Process Plan: VS DP Date: 12/11/15 Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
IIN D412-769	Rev C

100	Document Control	0.00	DEC 07 2016		DAS 27 9-89				
100	DOCUMENT CONTROL	0.00							
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP D412-769-042	CHG 002							

105	Pick Kit	0.00	DEC 14 2016		DAS 6 9-89				
105		0.00							
Packaging	Memo	0.00							
Packaging			DEC 07 2016		DAS 28 9-89				

110	QC4- 100% Inspect kits for completeness	0.00	DEC 14 2016		DAS 27 9-89				
110		0.01							
QC	Memo	0.01							
Quality Control									

DEC 14 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY																																																											
☐ Environment	☐ Design	☐ Doc/Data	☐ Equip/Tooling	☐ Handling/Pre	☐ Material	☐ Internal Transport	☐ Tribal Knowledge	☐ LOA	☐ Substation	☐ Past Expiry Date	☐ Misidentified	☐ No Re-verification	☐ Operator	☐ Offset/Setup	☐ Supplier	☐ Training	☐ Use for Testing	☐ Poor Information	☐ Rushing	☐ Product Improvement	☐ Process Improvement	☐ Manufacturing Process	☐ Past Due	☐ Pressure/Forced	☐ Bending	☐ Centre Not Concentric	☐ Cracks	☐ Crimp/Kink/Ripple/Wave	☐ Cuffs	☐ Crushing	☐ Heat Treat	☐ Wave/Twist in Tube	☐ Marks/Chatter	☐ Temperature/Cure	☐ Set-up	☐ BOM/Route	☐ Broken/Damage/Defect	☐ Inspection Incomplete/Unqualified	☐ Contamination	☐ Countersink	☐ Cut Too Short	☐ Instructions Incomplete/Unclear	☐ Drill Holes	☐ Power Loss/Surge	☐ Folio/Program	☐ Grain	☐ Weld	☐ Wrong Stock Pulled	☐ Out of Sequence	☐ Off-set	☐ Mislabeled	☐ Fit/Function	☐ Misaligned/off center	☐ Positioned Wrong	☐ Outside Dimensions	☐ Over/Under tolerance	☐ Part Incorrect	☐ Part Lost/Missing	☐ Part Moved	☐ Drawing	☐ Finish	☐ Misread	☐ Turning Sequence
																								OTHER : _____																																							

Work Order ID 153281

Tuesday, November 15, 2016 1:10:52 PM

153281

Page 2

Item ID: D412-769-042 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft Facing Seat, RH
Start Date: 11/21/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 12/7/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference: SO128516

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	Packaging	0.00							
120									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-769-042								
	Location: _____								
	PPP Rev: _____								
130	QC21- Final Inspection - Work Order Release	0.00							
130									
QC	Memo	0.02							
Quality Control									

DAS 27 9-89
DAS 28 9-89
DEC 14 2016
16/12/14
16-12-14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

Tuesday, November 15, 2016 1:10:59 PM

Page 1

Work Order ID: 153281

153281

Parent Item: D412-769-042

D412-769-042

Parent Item Name: Aft Facing Seat, RH

Start Date: 11/21/2016

Required Date: 12/7/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev A 08-07-17 new issue DD verified by:EC IPP Rev:B
10.03.23 as per IIN revC DD verified by:EC IPP Rev:C 10.06.07
added pick kit DD verf:EC IPP REV:D 12.07.27 @ CHG002
(ECN12-621) DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D412-724-041

Manufactured

No

105

Each

2.0000

1

1

D412-724-041

Head Rest Assembly, Center

**

150463

DEC 07 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

FG017

2

146066

1

147704

1

D412-724-044

Manufactured

No

105

Each

2.0000

1

1

D412-724-044

Head Rest Assembly, RH

**

152984

DEC 07 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

FG017

2

145765

2

D412-769-044

Manufactured

No

105

Each

0.0000

1

1

D412-769-044

Aft Facing Seat Assembly, RH

**

153304

7/12/2016

DAS
27
9-89

DAS
28
9-89

DAS
6
9-89

DAS
6
9-89
DAS
28
9-89

DAS
28
9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

4. WEIGHT AND BALANCE

The following is the weight increase associated with the D412-769-XXX Kits. The installer is responsible for the weight of the equipment coming out of the helicopter in order to install the D412-769-XXX Aft Facing Seat kits.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D412-769-011	60.0 lb	0.0 in	0.00 in-lb	87.0 in	5220 in-lb
Aft Facing Seat kit	27.2 kg	0.0 m	0.00 m-kg	2.21 m	60.11 m-kg
D412-769-041	30.0 lb	-16.1 in	-483.0 in-lb	87.0 in	2610 in-lb
Aft Facing Seat, LH (normal position)	13.6 kg	-0.41 m	-5.58 m-kg	2.21 m	30.06 m-kg
D412-769-042	30.0 lb	+16.1 in	+483.0 in-lb	87.0 in	2610 in-lb
Aft Facing Seat, RH (normal position)	13.6 kg	+0.41 m	+5.58 m-kg	2.21 m	30.06 m-kg
D412-769-041	30.0 lb	-1.1 in	-33.0 in-lb	87.0 in	2610 in-lb
Aft Facing Seat, LH (center position)	13.6 kg	-0.03 m	-0.41 m-kg	2.21 m	30.06 m-kg
D412-769-042	30.0 lb	+1.1 in	+33.0 in-lb	87.0 in	2610 in-lb
Aft Facing Seat, RH (center position)	13.6 kg	+0.03 m	+0.41 m-kg	2.21 m	30.06 m-kg
D412-769-041	30.0 lb	+13.9 in	+417.0 in-lb	87.0 in	2610 in-lb
Aft Facing Seat, LH (right Position)	13.6 kg	+0.35 m	+4.76 m-kg	2.21 m	30.06 m-kg
D412-769-042	30.0 lb	-13.9 in	-417.0 in-lb	87.0 in	2610 in-lb
Aft Facing Seat, RH (left Position)	13.6 kg	-0.35 m	-4.76 m-kg	2.21 m	30.06 m-kg

5. PARTS LIST

Qty -011	Qty -041	Qty -042	Part Number	Description
X			D412-769-011	AFT FACING SEAT KIT
1	X		D412-769-041	AFT FACING SEAT, LH
1		X	D412-769-042	AFT FACING SEAT, RH
	1		D412-769-043	AFT FACING SEAT ASSEMBLY, LH
		1	D412-769-044	AFT FACING SEAT ASSEMBLY, RH
	1	1	D412-724-041	HEAD REST ASSEMBLY, CENTER
	1		D412-724-043	HEAD REST ASSEMBLY, LH
		1	D412-724-044	HEAD REST ASSEMBLY, RH

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 153281

h2
16/11/15

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Work Order ID 153281

Wednesday, December 07, 2016 1:12:40 PM

153281

Page 1

Item ID: D412-769-042

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Facing Seat, RH

Start Date: 11/21/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/7/2016 Req'd Qty: 1.00

1

Customer:

Reference: SO128516

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

IIN D412-769

Rev C

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP D412-769-042 CHG 002

DAS
21
9-89

DEC 08 2016

105

Pick Kit

0.00

105

Packaging

Memo

0.00

Packaging

110

QC4- 100% Inspect kits for completeness

0.00

110

QC's

Memo

0.01

Quality Control

NOA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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